

Application S/N 10/826,953
Amendment Dated: November 22, 2005
Response to Office Action dated: July 14, 2005

CE12724JME

REMARKS/ARGUMENTS

Claims 1-6 and 8-20 remain pending in the application, as claim 7 has been canceled without prejudice. In the Office Action, claims 1, 2 and 11 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,895,884 to Davidson (Davidson). In addition, claims 1-3, 13, 14, 17 and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,160,807 to Fry, et al. (Fry). Claims 1-3, 13, 15, 17, 19 and 20 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,844,784 to Moran, et al. (Moran). Finally, claims 1-20 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,414,597 to Lindland, et al. (Lindland).

A brief summary of the Davidson, Fry, Moran and Lindland references may be helpful here. Davidson discloses a shielding device formed from two unitary pieces, one of which takes the form of a lid having flanges and the other a side wall member that is adapted for mounting on a substrate surface (see Abstract). The flanges of the lid are biased for contact with the outside surfaces of the side wall member and include dome-shaped projections for engaging apertures of the outside surfaces to secure the lid to the side wall member (see col. 3, line 54 – col. 4, line 10). The lid fits over the side wall member (see FIG. 1).

Fry describes a circuit board that includes alternating slots and bridges that form a boundary between a protected area of the board and an unprotected area of the board. A top cover and a bottom cover are received by the slots and are used to shield components in the protected area of the board (see Abstract). Fry also shows an

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aluminum heat sink plate that is mounted to an inside side wall of the bottom cover but is not mounted on or coupled to the top cover (see FIG. 2).

Moran shows a combined EMI shield and brace assembly that has two frames for placing side-by-side on a printed wiring board to surround predetermined adjacent areas on the board containing components to be shielded from one another (see Abstract). The assembly also includes a brace member that secures the frames together during reflow (see Abstract). In particular, the brace member extends over the frames and is secured to the side walls of the frames (see Abstract and FIG. 2). The side walls of the frames include spaced dimples or indents, while the inner walls of the brace member contain corresponding bumps or protrusions for snap engagement (see col. 3, lines 28-33).

Lindland describes an RF shielded electronic module formed of stamped sheet metal forming a wrap having four side walls. A sheet metal cross member extends between opposed walls and is welded to both of them. A printed circuit board (PCB) is soldered to the cross member and to the wrap such that the cross-member provides an RF shield between separate areas of components on the PCB. A pair of sheet metal covers are joined to the wrap to substantially enclose the circuit board (see Abstract and FIGs. 1 and 2).

Independent claims 1, 13 and 17 have been amended to clarify that the strengthening member is externally mounted on and coupled to only a top surface of a first shield and only a top surface of a second shield. Support for the amendments can be found in FIG. 1 and in paragraph 0030 (last sentence). No new matter has been added in view of these amendments.

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Neither Davidson, Fry, Moran nor Lindland disclose, illustrate, teach or even suggest such a concept. In particular, the lid in Davidson and the brace in Moran are placed over the frames housing the electrical components to enable the lid or brace to be snap engaged with the side walls of the frames. This feature enables the lid and brace of these references to be easily removed should access to the electrical components within the frame be needed. Such a configuration is not suitable for permanently strengthening a substrate assembly because a snap-engaged lid or brace could easily pop off if the device housing the substrate assembly were dropped. Also, the heat sink plate in Fry and the cross-member of Lindland are mounted within the shields and are not positioned on the top surfaces of the shields. The present invention, by mounting the strengthening member externally and on the top surfaces of the first shield and second shield, can permit the easy assembly of a such a member and can ensure a stronger securing mechanism than that afforded by the prior art.

Dependent claims 3 and 14 have been amended to clarify that the first shield includes a first side wall and a second side wall in which the second wall is opposite the first side wall and the elongated member only runs along the first side wall. Support for the amendments can be found in FIGs. 2 and 3. No new matter has been added in view of these amendments. This feature further distinguishes from at least Davidson and Moran, as the lid and brace in those respective references must be positioned along at least two opposing sides of the frames to enable the snap engagement of these components.

In view of the above, Applicants submit that independent claims 1, 13 and 17 are patentable over the prior art. Applicants also believe that those claims that depend from

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these independent claims are patentable, both based on their dependencies on the independent claims and their patentability on their own. Reconsideration and withdrawal of the rejection of the claims is respectfully requested. Passing of this case is now believed to be in order, and a Notice of Allowance is earnestly solicited.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicants' attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

The Commissioner is hereby authorized to charge any necessary fee, or credit any overpayment, to Motorola, Inc. Deposit Account No. 50-2117.

Respectfully submitted,

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